

REMARKS

This is in response to the Office Action mailed on April 26, 2004, in which claims 1-3, 5, 10-12, and 19 were rejected, and claims 4, 6-9, 13-18, and 20-23 were objected to. With this Amendment, claims 1 and 10 are amended, and new claims 24-31 are added, such that the pending claims are 1-31.

Supplemental Information Disclosure Statement

A Supplemental Information Disclosure Statement citing the Schreck patent (USP 6,005,736) was filed on April 19, 2004. It is respectfully requested that the Examiner verify receipt and consideration of the foregoing cited reference.

Claim Rejections - 35 U.S.C. § 102

Claims 1-3, 5, 10-12, and 19 were rejected under 35 U.S.C. § 102(b) as being anticipated by Ishida. In order to reject a claim under 35 U.S.C. § 102(b) as being anticipated by the prior art, each element of the claim under construction must be disclosed in a single prior art reference. In re Dillon, 919 F.2d 688, 16 U.S.P.Q.2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). Because Ishida does not disclose each element of the claims, Ishida does not anticipate the present invention.

In rejecting independent claim 1, the Examiner noted that "Ishida teaches a head positioning system comprising a patterned media comprising data tracks and a slider with electrodes for use in positioning the head over a track." Independent claim 1 has been amended to clarify that the transducing head positioning system comprises a first portion of an electrostatic motor comprising patterned data storage media having a plurality of data tracks. A slider forms a second portion of the electrostatic motor. The electrostatic motor is used to position a transducing head above a selected data track on the patterned storage media.

Ishida does not disclose an electrostatic motor for positioning a transducing head above a selected data track. As depicted in Figure 1, and discussed in column 3, lines 25-39, Ishida teaches a magnetic disc recording and reproducing device with at least a pair of electrodes (50 and 51) for use in detecting an electrostatic capacitance. Electrostatic capacitances C_1 and C_2 are

generated between the pair of electrodes (50 and 51) and the electrical conducting layers of the recording medium (1). These electrostatic capacitances are detected by the electrostatic capacitance sensor (5). A calculation means then calculates a tracking error (e_t) that corresponds to the sensed electrostatic capacitances. The tracking error is then fed back to the drive circuit (42), and is used to control the tracking of the head (3).

In contrast, the transducing head positioning system of amended independent claim 1 comprises an electrostatic motor, a first portion comprising patterned data storage media having a plurality of data tracks, and a second portion formed on a slider, wherein the electrostatic motor is used to position a transducing head above a selected data track. Ishida does not teach the positioning of a head through the use of an electrostatic motor. Instead, the head in Ishida is positioned by use of a drive circuit (42) and a voice coil motor (43). Therefore, because Ishida fails to disclose each element of amended independent claim 1, the rejection of claim 1 under 35 U.S.C. § 102(b) should be withdrawn.

Claims 2, 3, and 5 were also rejected under 35 U.S.C. § 102(b) as being unpatentable over Ishida. Claims 2, 3, and 5 depend from amended independent claim 1. As such, these claims are allowable with their amended independent base claim. In addition, it is respectfully submitted that the combinations of features recited in claims 2, 3, and 5 are patentable on their own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

In rejecting independent claim 10, the Examiner noted that "Ishida teaches a head positioning system comprising a patterned media comprising data tracks and a slider with electrodes for use in positioning the head over a track." Independent claim 10 has been amended to clarify that the plurality of electrodes on the slider are configured to be selectively activated to cause an electrostatic attraction between an electrode and a data track "to position the slider at a selected data track." Independent claim 10 has also been amended to eliminate an erroneous additional "period" at the end of the claim.

Ishida does not anticipate amended independent claim 10. As described above, Ishida teaches a slider with at least a pair of electrodes (50 and 51) for use in detecting an electrostatic capacitance. Electrostatic capacitances C_1 and C_2 are generated between the pair of electrodes (50 and 51) and the electrical conducting layers of the recording medium (1), and are then detected by the electrostatic capacitance sensor (5). A calculation means then calculates a tracking error (e_t) that corresponds with the sensed electrostatic capacitances, which is then fed back to the drive circuit (42) that controls the tracking of the slider part (31) of the head (3). Therefore, the electrodes (50 and 51) in Ishida are used to sense the capacitances and provide feedback to the drive circuit (42).

In contrast to the present invention, the electrostatic capacitances of Ishida do not provide a force that is used to position the slider (31). Rather, the slider (31) of Ishida is positioned using only the drive circuit (42). Unlike positioning a slider by use of a drive circuit (42), the slider in amended independent claim 10 is positioned through the selective activation of the plurality of electrodes located on the slider. Ishida does not teach positioning a slider by selectively activating a plurality of electrodes. Therefore, because Ishida fails to disclose each element of amended independent claim 10, the rejection of claim 10 under 35 U.S.C. § 102(b) should be withdrawn.

Claims 11 and 12 were also rejected under 35 U.S.C. § 102(b) as being unpatentable over Ishida. Claims 11 and 12 depend from amended independent claim 10. As such, these claims are allowable with their amended independent base claim. In addition, it is respectfully submitted that the combinations of features recited in claims 11 and 12 are patentable on their own merits, although this does not need to be specifically addressed herein since any claim depending from a patentable independent claim is also patentable. See M.P.E.P. 2143.03, citing In re Fine, 5 U.S.P.Q.2d (BNA) 1596 (Fed. Cir. 1988).

In rejecting independent claim 19, the Examiner noted that "Ishida teaches a head positioning system comprising a patterned media comprising data tracks and a slider with electrodes for use in positioning the head over a track." Based on the argument above for amended independent claim 1, Ishida does not teach "moving the transducing head to a desired data track on the storage medium by actuating an electrostatic motor formed by the plurality of electrodes on the slider and

tracks on the patterned electronic storage medium." Rather, Ishida teaches moving the transducing head to a desired data track on the storage medium by detecting electrostatic capacitances, calculating a tracking error (e_t), and using the tracking error as feedback to the drive circuit. (Col. 3, lines 25-39.) It is the drive circuit, not an electrostatic motor, that moves the transducing head to a desired data track on the storage medium. Therefore, because Ishida fails to disclose each element of independent claim 19, the rejection of claim 19 under 35 U.S.C. § 102(b) should be withdrawn.

Allowable Subject Matter

Claims 4, 6-9, 13-18, and 20-23 were objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The Examiner's indication that claims 4, 6-9, 13-18, and 20-23 would be allowable is gratefully acknowledged.

With this Amendment, new claims 24-31 are submitted. It is believed that new claims 24-31 are allowable as distinguishable over the prior art.

CONCLUSION

In view of the foregoing, all pending claims 1-31 are in condition for allowance. A notice to that effect is respectfully requested. The Examiner is cordially invited to contact the undersigned at the telephone number listed below if such a call would in any way facilitate the allowance of this application.

Respectfully submitted,

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Date:

July 26, 04

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